Department of Toxic Substances Control

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October 4, 2005

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DRAFT CLOSURE PLAN, RANGE 36A, FORMER FORT ORD, CALIFORNIA,
EPA ID. NO. CA7210020676

Dear Ms. Youngblood:

In a letter dated August 23, 2005, the Department of Toxic Substances Control (DTSC) determined that the "Draft Final RCRA Closure Plan, Range 36A, (Solid Waste Management Unit FTO-016), Former Fort Ord, California, Revision 0," (Draft Closure Plan) dated May 20, 2005, was technically complete.

During preparation of an Initial Study for the closure project in accordance with the California Environmental Quality Act (CEQA), DTSC discovered that the Draft Closure Plan included activities which may have a potentially significant impact on biological resources at Range 36A. Based on the Initial Study, DTSC prepared a Draft Mitigated Negative Declaration which includes additional project controls to reduce the potential impacts of the closure to less than significant levels. The project controls are described in Attachment A and are also hereby added to the Draft Closure Plan. Copies of the draft Mitigated Negative Declaration and Initial Study are enclosed.

In accordance with California Code of Regulations, title 22, subsection 66265.112(d)(5) the Draft Closure Plan for Range 36A will be made available for public review and comment during a 30-day period. In accordance with California Code of Regulations, title 14, section 15073, the Draft Mitigated Negative Declaration also will be made available for public review and comment during a 30-day period, concurrently with the Draft Closure Plan. The public comment period will start on October 7, 2005, and end on November 7, 2005. Copies of the public notice and Fact Sheet are enclosed.

Based on comments received, DTSC may approve or modify the Closure Plan for Range 36A.

If you have any questions concerning this letter, please contact Mr. Paul Ruffin, of my staff, at (916) 255-6677.

Sincerely,

Rao Akula, P.E., Chief
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Enclosures

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The following measures will be employed as warranted by the site conditions.

The following text is excerpted from the U.S. Fish and Wildlife Service's (U.S. FWS) biological opinion (1-8-04-F-25R) issued on March 14, 2005. Some text has been slightly revised to remove references to brush clearing using fire because that method will not be employed during this project.

The Army has proposed the following conservation measures to minimize the adverse effects of munitions response actions on the California tiger salamander, the other species of concern addressed in the Habitat Management Plan (HMP) (termed "HMP species" in the biological opinion), and critical habitat for Contra Costa goldfields.

1. Conduct Employee Education Program. A biologist familiar with HMP species will present the training to all supervisors and field personnel prior to the beginning of any ordnance and explosives (OE) investigations or removal activities and to any new personnel prior to their beginning work on the project. Topics covered in the training will include a description of HMP plant and wildlife species that could be encountered in the project area, environmental laws related to the conservation of these species, guidelines that personnel must follow to reduce or avoid impacts to HMP species, and the appropriate points of contact to report unforeseen impacts on HMP species.

2. Prepare a habitat checklist that identifies HMP resources present and recommends measures to reduce or avoid impacts during the pre-disposal actions.

3. Flag the population boundaries of HMP species to the extent possible to avoid unnecessary disturbances.

4. Set-aside topsoil during excavations and replace it once excavations are back-filled.

5. Schedule excavations to occur after Contra Costa goldfields (and other special status plants) plants have set seed, to the extent possible.

6. Avoid vegetation clearance within occupied Contra Costa goldfields area since the vegetation is typically low growing (less than 6 inches) and does not limit safe access.

7. Restrict munitions response site to the smallest area possible to limit unnecessary disturbance of habitat, while still allowing for the safe and effective removal of explosive hazards. Place access roads, fuel breaks, staging areas, and other necessary support facilities so as to avoid areas containing HMP plant and wildlife species and maritime chaparral vegetation, when possible. Use existing roads whenever possible and minimize use of vehicles off roads to the greatest extent practicable.

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8. In munitions response special-case areas, use existing fuel breaks and established dirt road for target removal when available. When targets are further from existing roads, a safety team will determine access routes using the safest route from the existing road to the range target, taking into consideration the route with the least biological impacts.

9. After it is determined that a range target can be moved safely, it will be hauled over the same access route to return to the existing road. This "one-time-in/one-time-out" procedure will be performed in a manner that minimizes impacts to the habitat. For multiple targets that are in close proximity to each other, the same access route may be used again if doing so would reduce the impact on the environment.

10. Conduct follow-up visits to munitions response site to identify potential erosion areas and apply weed-free straw as necessary.

11. Monitor wetland and chaparral habitats affected by munitions responses actions annually for five years to document recovery of HMP species and their habitats and implement corrective actions if necessary. This is an iterative process designed to improve the Army's ability to implement the remediation in a manner that effectively conserves listed and sensitive species and their habitats.

12. Consider HMP plant species recovery successful, if at the end of 5 years: (1) self-sustaining populations in different stages of succession result within a mosaic of maritime chaparral habitat, (2) the amount of occupied habitat varies over time within a range that was estimated for these species in 1992, and (3) population sizes vary from year-to-year within a range that was estimated for these species in 1992.

Habitat Management Plan for Predisposal Actions
Mitigations for Parcel F.1.7.1

The following are excerpts from Chapter 3, Predisposal Actions, U.S. Army Corps of Engineers Installation-Wide Multispecies HMP for Former Fort Ord, California, April 1997.

Mitigation measures for impacts on HMP species and habitats resulting from OE sampling and removal activities will be implemented at all sites not planned for development. The primary objective of mitigation efforts is to reestablish healthy, high-diversity maritime chaparral habitat that has a variety of seral stages and age classes and that includes microhabitat for sand gilia, Monterey spineflower, Seaside bird's beak, and black legless lizard.

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The health of maritime chaparral is marked by successful establishment of this community's component species, many of which are HMP species (i.e., sandmat manzanita, Monterey ceanothus, Eastwoods's ericameria, Toro manzanita, and Hooker's manzanita).

Specific mitigation measures for vernal pools and ponds are also provided to minimize potential impacts on California linderiella, California tiger salamander, and red-legged frog.

During the Project, the following measures will be implemented:

Minimize Disturbance Associated with OE Removal

OE removal sites will be restricted to the smallest area possible to limit unnecessary disturbance of habitat. Placement of all access roads, staging areas, and other appurtenant facilities will attempt to avoid areas containing HMP plant and wildlife species and maritime chaparral vegetation. Existing roads will be used whenever possible and use of vehicles off roads will be minimized to the greatest extent practicable.

Avoid Disturbance of Sand Gilia and Seaside Bird's-Beak Populations

Where feasible, avoid populations of sand gilia and Seaside bird's-beak. Fence or flag known populations and educate ordnance clearing crews as to the location and identification of these species.

Conduct Employee Education Program

Before OE removal or sampling activities begin, all supervisors and field personnel must attend a brief environmental training program. The training program will be presented by a qualified biologist familiar with the HMP plant and wildlife resources at former Fort Ord. As the project proceeds, all new personnel must attend an environmental training session before working on the site. Topics to be covered in the training session include:

- A description of HMP plant and wildlife species that could be encountered in the project area,
- Pertinent state and federal laws relating to the conservation of these species,
- Guidelines that personnel must follow to reduce or avoid impacts on HMP species, and
- The appropriate contacts to report unforeseen impacts on HMP species.

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Minimize and Compensate for Impacts on California Linderiella, California Tiger Salamander, and California Red-Legged Frog

Vernal pools are considered potential habitat for California linderiella and California tiger salamander.* Ponds also provide potential habitat for these two species, as well as for the California red-legged frog. Vernal pools and ponds will be avoided whenever possible during cleanup of OE. However, if these habitats must be disturbed during removal of OE (i.e., during excavation or in situ detonation of OE), a mitigation and habitat restoration plan will be developed and implemented for each vernal pool or pond that is affected.

Mitigation and habitat restoration plans will include measures to minimize disturbance to ponds and vernal pools during ordnance removal. Methods for reducing disturbance include minimizing excavation area and depth, completing in situ detonation in a manner that minimizes soil disturbance, and setting aside topsoil during excavation to salvage plant seeds and California linderiella eggs. Before any vernal pool or pond is disturbed, it will be surveyed and all data described in the monitoring section below will be collected.

The goal of restoration plans will be to restore affected wetlands so that they are of the same acreage and provide the same functions as before clearing of ordnance. Restoration objectives would include establishment of self-sustaining populations of California linderiella, California tiger salamander, and California red-legged frogs similar to those that existed before ordnance removal.

Minimize Impacts on Black Legless Lizards

Potential habitat for black legless lizards has been identified in the western portion of the inland range area and other locations. Designation of suitable habitat was based on soil and vegetation conditions favorable to black legless lizards; however, the area has not been surveyed for the species.

Because of the difficulty and safety hazards associated with surveying for legless lizards in areas that many contain OE, all areas identified on maps in the HMP as potential habitat for the black legless lizard are considered occupied.

*Refer to the California tiger salamander provisions above, excerpted from the U.S. FWS Section 7 biological opinion.

If a legless lizard is encountered during excavation of OE, maximum effort will be made to preserve the animal without unreasonably delaying excavation activities. The lizard will be captured by hand, making all efforts possible not to injure the animal. The first option for treatment is to release an unharmed lizard after the excavation or ground

disturbing activity is completed. The lizard will be placed in a plastic container loosely filled with moist paper towels. If an injured or dead specimen is taken, a predetermined contact from the U.S. FWS or the California Department of Fish and Game (CDFG) will be notified immediately and may receive the specimen or recommend an appropriate person to receive the specimen. The live lizard either will be kept temporarily until activities are complete in the area where it was encountered and then released as near as possible to the point of capture, or it will be kept in captivity until the following spring and released in suitable habitat as near a s possible to the point of capture. If the lizard encountered is dead, the person receiving the specimen will identify the species of legless lizard and give the specimen to an appropriate agency or institution.

Success Criteria:

Healthy maritime chaparral habitat is described in Chapter 2 of the HMP Habitats section. This description and comparisons with undisturbed sites supporting maritime chaparral should be used to measure the success of restored habitat. The restored habitat will consist of naturally regenerating maritime chaparral that is managed using controlled burning and other techniques that maximize the habitat value for HMP species.

The acreages of habitat occupied by sand gilia, Monterey spineflower, and Seaside bird's-beak at low, medium, and high densities in areas in the inland range where some amount of OE is expected to occur are shown in Table 1 may represent about 8,000 to 12,000 individual sand gilia plants, 5,000 to 10,000 Seaside bird's-beak plants, and 4-7 million Monterey spineflower plants in the inland range area. This does not include areas outside the inland range where there is potential for OE. Restoration for these species will be considered successful if, at the end of 5 years:

- Self-sustaining populations result within a mosaic of maritime chaparral habitat in different stages of succession,
- The amount of occupied habitat varies over time within a range that includes amounts similar to the amount of habitat estimated for these species in 1992, and
- Population sizes vary from year to year within a range that increase annual populations similar in size to those estimated for these species in 1992.

In many instances, suitable habitat, occupied habitat, and populations of two or all three of these species will occur on the same site.

Vernal pool and pond restoration will be considered successful if affected wetlands are of the same acreage and provide the same functions as before clearing of ordnance. Also, if affected wetlands supported California linderiella, California tiger salamander, or

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California red-legged frogs before ordnance removal, they must support self-sustaining populations of these species for 5 years after restoration is complete.

Table 1
Approximate Acres of Habitat Supporting Sand Gilia, Monterey Spineflower, and Seaside Bird's-Beak in Areas in the Inland Range Expected to Contain OE

Plant	Acres of Habitat in Areas Where Unexploded Ordnance Expected to Occur
Sand gilia*	
Low density	1,115
Medium density	20
High density	0
Monterey spineflower*	
Low density	2,135
Medium density	1,780
High density	410
Seaside bird's-beak*	
Low density	390
Medium density	15
High density	0

*The above data is from a 1992 survey.

Each patch of maritime chaparral cleared of ordnance will be monitored annually for 5 years beginning with the year of ordnance removal activities. In most cases, the monitored site will be delineated by the edge of a controlled burn area established before ordnance removal. Because ordnance removal will occur over several years, the 5-year monitoring period for groups of ordnance removal sites will be initiated in different years. The reestablishment of vegetation will be measured at each ordnance removal site, using relieve, quadrant, transect, or a combination or vegetation survey methods. Each monitoring year, the following information will be recorded for each ordnance removal site:

Size of the site in acres (first year only);
Method used to clear vegetation (e.g., burning, chipping, none) first year only);
Extent of soil disturbance from ordnance removal (first year only);
Percent absolute vegetative cover;

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Percent cover of each woody plant species present (including HMP shrubs);
Percent herbaceous cover and list of dominant herbaceous species;
Percent cover by nonnative weedy plants;
Estimated number of plants and mapped location of sand gilia, Monterey spineflower, Seaside bird's beak, and coast wallflower;
General wildlife use;
Vegetation establishment record through color photographs.

A protocol for conducting vegetation sampling at former Fort Ord has been developed to guide monitoring efforts (U.S. Army Corps of Engineers, Sacramento District, 1995). The protocol and results of monitoring efforts are being coordinated with the Coordinated Resource Management and Planning (CRMP) process, U.S. FWS, and others. With ordnance removal sites varying from approximately 200 to 400 acres in size and the inland range comprising approximately 8,000 acres, there should be between 20 to 40 sites to be monitored for habitat reestablishment. This number could be reduced based on the final size of the Restricted/Administrative area. This information will be analyzed and complied into annual monitoring reports. Conclusions drawn from the data in monitoring reports will be used to modify subsequent burning and ordnance clearing actions to promote more effective restoration of healthy, diverse maritime chaparral and habitat and populations of HMP species. The level of detail of monitoring data for maritime chaparral and associated HMP species may be adjusted over time, as the level of detail necessary to judge mitigation success is better understood through the results of monitoring the initial sites of vegetation clearing, ordnance cleanup, and vegetation reestablishment.

Restored vernal pools and ponds will be monitored during each rainy season for 5 years after restoration is completed. Each monitoring year, the flowing information will recorded for each restored vernal or pond:

- Dates each pool or pond begins to fill and when it dries relative to timing and abundance of yearly rainfall;
- Water conditions, including depth, surface area, turbidity, and pH;
- Percent submergent, floating, and emergent vegetative cover (estimated using transects, quadrants, or other appropriate techniques) and species composition; and
- Occurrence and relative abundance of California linderiella adults and adults and larvae of California tiger salamander California red-legged frog.

This information will be analyzed and complied into annual monitoring reports. Conclusions drawn from the data in monitoring reports will be used to modify subsequent ordnance removal practices in wetland habitats and implementation of future vernal pool and pond restoration plans. The level of detail of monitoring data for vernal pools and ponds may be adjusted over time, as the level of detail necessary to

judge mitigation success is better understood through the results of monitoring the initial sites of vernal pool and pond restoration.

Corrective Measures

Based on the results of each year's monitoring, the restored maritime chaparral habitat management will be modified, if necessary, to meet success criteria. In some instances, supplemental weeding, planting, or seeding may be needed to meet the established success criteria.

Improvement of sand gilia, Monterey spineflower, and Seaside bird's-beak habitat will be conducted if population levels for these species do not meet the success criteria.

If success criteria for vernal pool and pond restoration are not satisfied; corrective measures will be developed on a case-by-case basis to identify the cause of failure. Previous monitoring data will be analyzed, and, if necessary, specific studies will be undertaken to determine the reason for failure to meet success criteria. Corrective measure will be developed to respond to the cause of noncompliance determined from these data. An appropriate corrective measure must be implemented within 1 year of determination that success criteria will not be satisfied, and the vernal pool or pond will be monitored for additional 3 years after implementation.

U.S. FWS, DFG, and the Army will review all proposed wetland corrective measures before they are implemented. If, after two attempted corrective measure success criteria are still not satisfied, another mitigation site will be chosen for vernal pool or pond enhancement or creation.